

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO. : 7,045,321 B2  
APPLICATION NO. : 10/084172  
DATED : May 16, 2006  
INVENTOR(S) : Takeshi Imamura et al.

Page 1 of 29

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON COVER PAGE AT (54) TITLE OF THE INVENTION

“POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER”

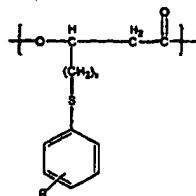
should read

--POLYHYDROXYALKANOATE CONTAINING UNIT WITH  
PHENYLSULFANYL STRUCTURE IN THE SIDE CHAIN, PROCESS FOR  
ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BINDER AND  
TONER WHICH CONTAIN NOVEL POLYHYDROXYALKANOATE,  
AND IMAGE-FORMING METHOD AND IMAGE-FORMING  
APPARATUS WHICH MAKE USE OF THE TONER--.

ABSTRACT

Delete the Abstract at (57) and insert:

--A polyhydroxyalkanoate is disclosed which has in the molecule a unit represented by Chemical Formula (1).



wherein R is arbitrarily selected from a hydrogen atom, a halogen atom, CN, NO<sub>2</sub>, COOR', SO<sub>2</sub>R'', CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C(CH<sub>3</sub>)<sub>2</sub>H and C(CH<sub>3</sub>)<sub>3</sub>; where R' is H, Na, K, CH<sub>3</sub> or C<sub>2</sub>H<sub>5</sub>, and R'' is OH, ONa, OK, a halogen atom, OCH<sub>3</sub> or OC<sub>2</sub>H<sub>5</sub>; and x is an integer arbitrarily selected from 1 to 8; with the proviso that a polyhydroxyalkanoate is excluded which has a hydrogen atom as R and x in all the units is 2 or 4. Also disclosed is a process for producing the polyhydroxyalkanoate by the use of a microorganism having the ability to produce the polyhydroxyalkanoate and accumulate it in the bacterial body.--.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

FIGS. 1-10 should be deleted and replaced with FIGS. 1-26 of the present application.

**COLUMN 1**

Line 17, "proudcing" should read --producing--;  
Line 18, "prdouce" should read --produce--;  
Line 44, "polyemrs" should read --polymers--;  
Line 53, "know" should read --known--; and  
Line 58, "strucutre" should read --structure--.

**COLUMN 2**

Line 16, "the" should read --the aid of--; and  
Line 30, "macromolecuels," should read --macromolecules,--.

**COLUMN 3**

Line 44, "cells," should read --calls,--;  
Line 48, "bruch" should read --brush--;  
Line 49, "foruth" should read --forth--; and  
Line 53, "an" should read --aid of an--.

**COLUMN 4**

Line 5, "are dye" should read --azo dye--;  
Line 10, "dibutylin" should read --dibutyltin--; and "toners" should read  
--Toners--;  
Line 16, "metla" should read --metal--;  
Line 22, "ar eto" should read --are to--; and  
Line 23, "contorl" should read --control--.

**COLUMN 5**

Line 5, "8-17964" should read --No. 8-179564--;  
Line 17, "syntehsis" should read --synthesis--; and "hwihc" should read  
--which--;  
Line 39, "adn" should read --and--;  
Line 50, "properites" should read --properties--;  
Line 56, "applciation" should read --application--; and  
Line 63, "disclose" should read --discloses--.

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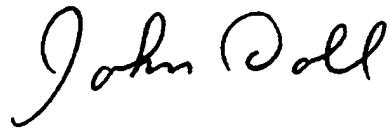
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 6

Line 7, "characterised" should read --characterized--; and  
Line 30, "te" should read --the--; and  
Delete line 31, to Column 68, line 59 and insert the text at Specification page  
16, line 12 to page 224, line 21.

Signed and Sealed this

Thirtieth Day of June, 2009



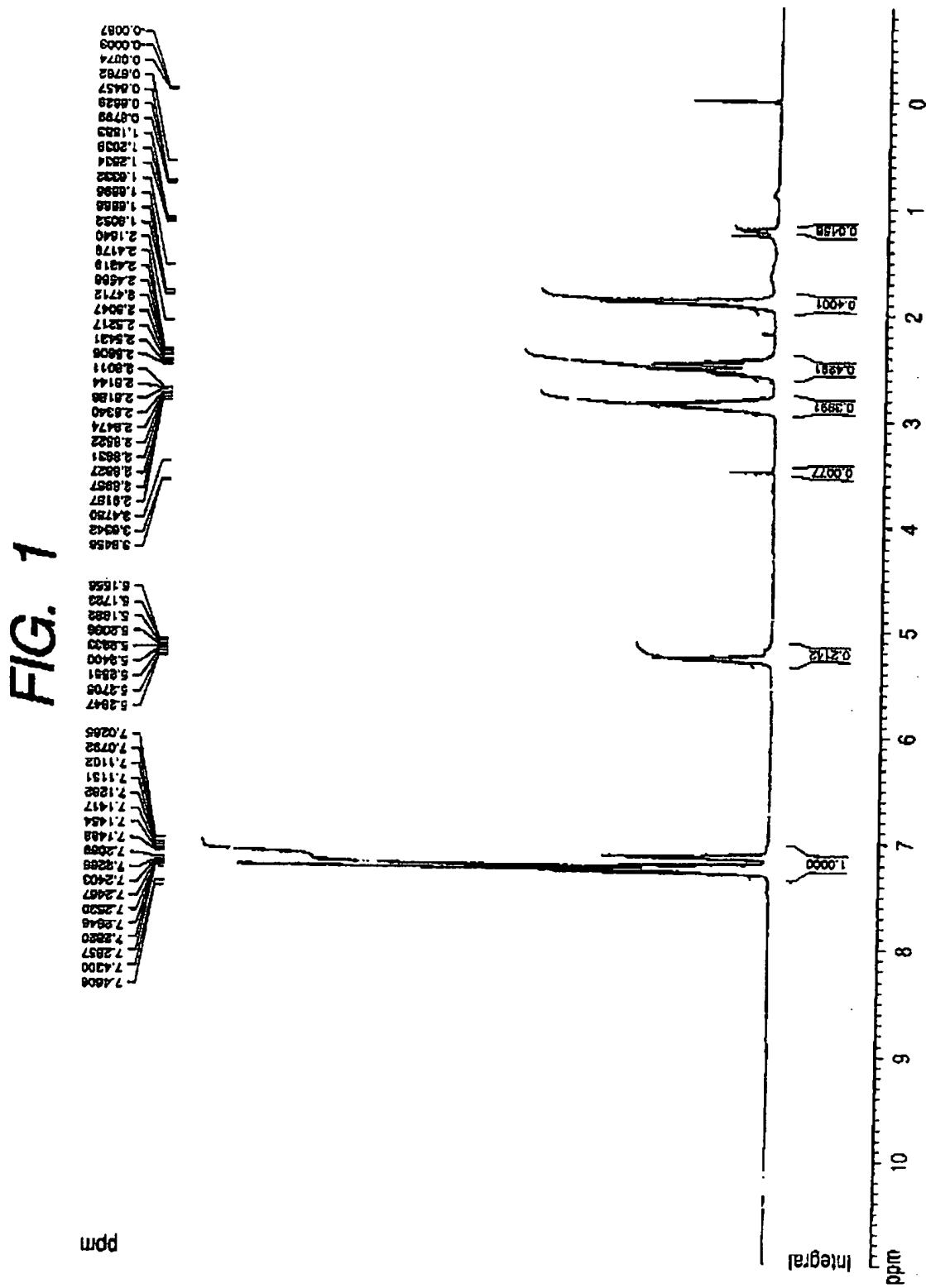
JOHN DOLL  
*Acting Director of the United States Patent and Trademark Office*

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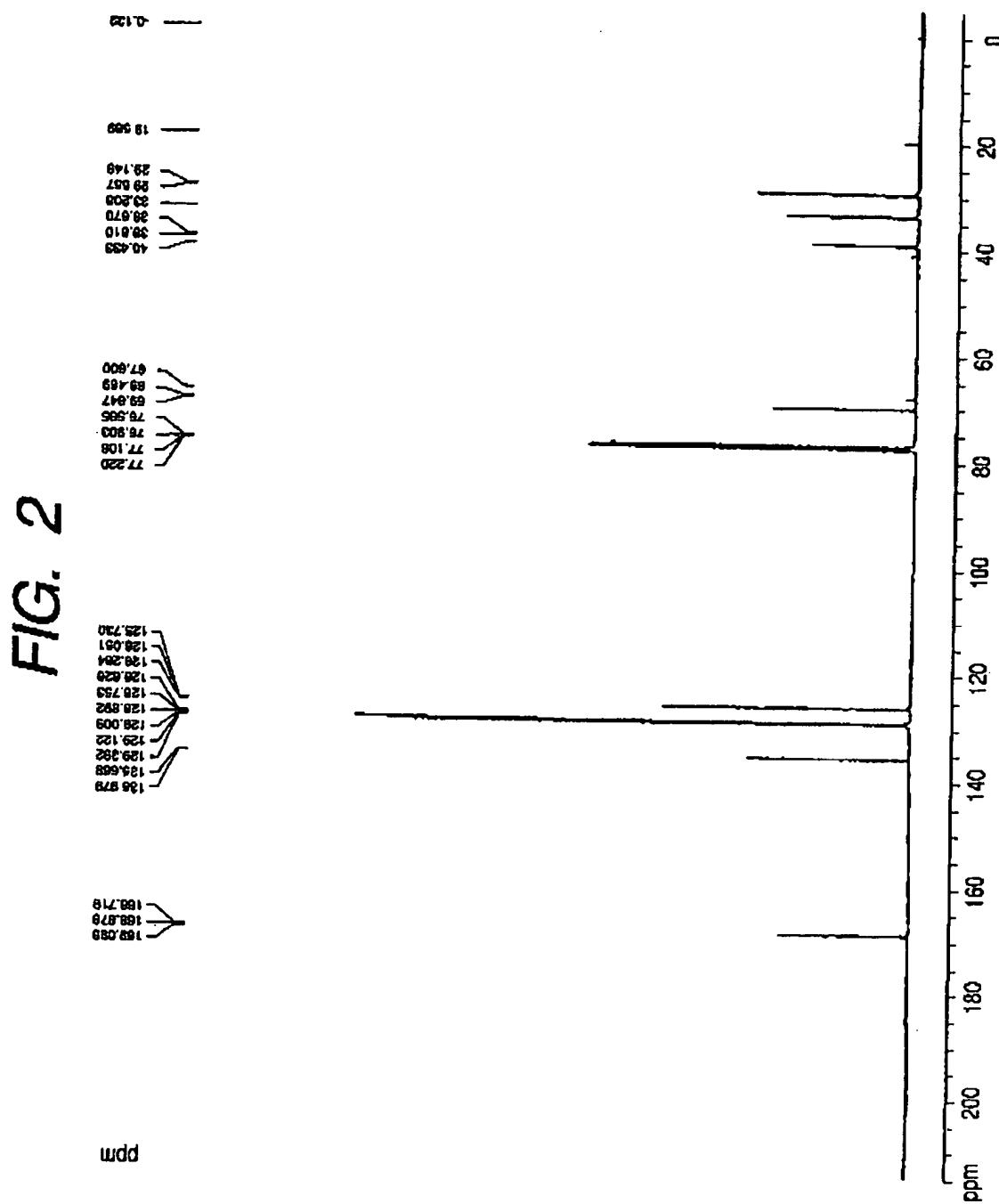


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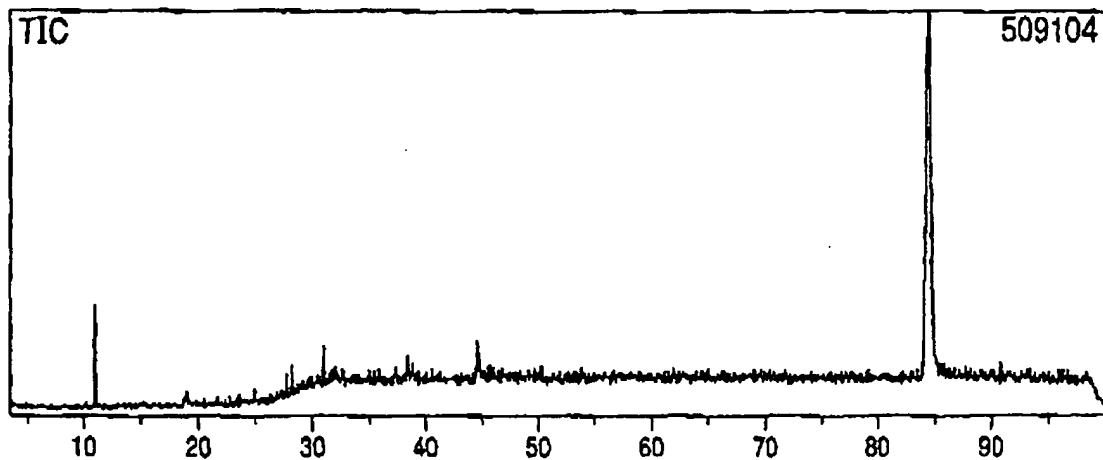
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FIG. 3



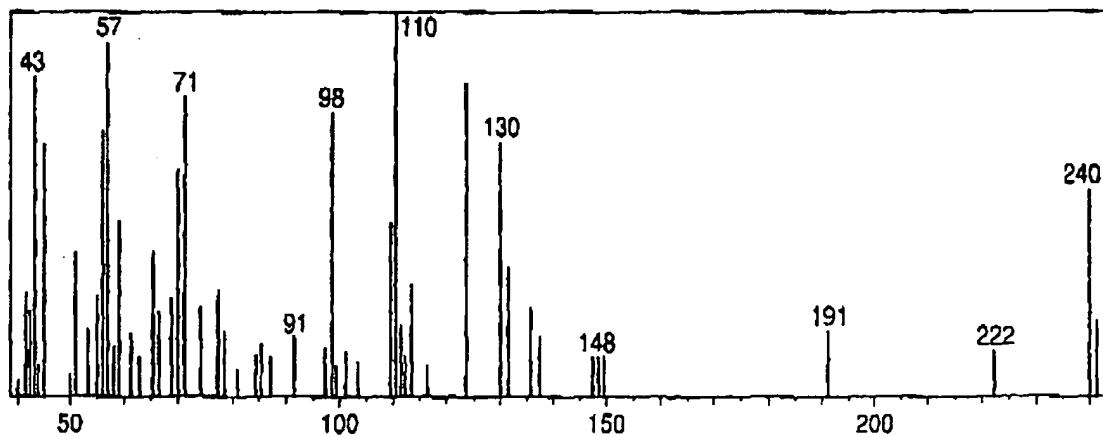
SCAN NO. : 9724

NUMBER OF PEAKS : 52

BASE PEAKS : 110.20 (26229)

BACKGROUND : (9358-10090)

RETENTION TIME : 84.525



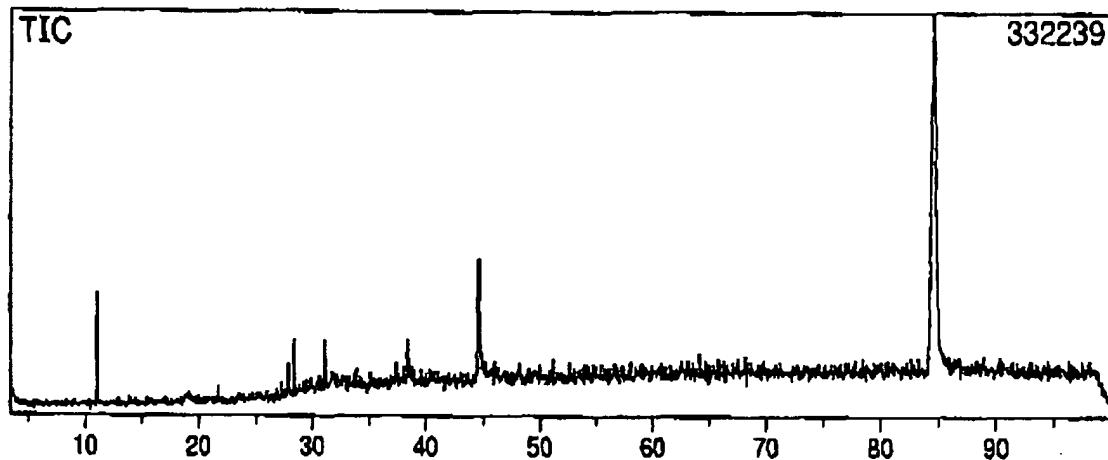
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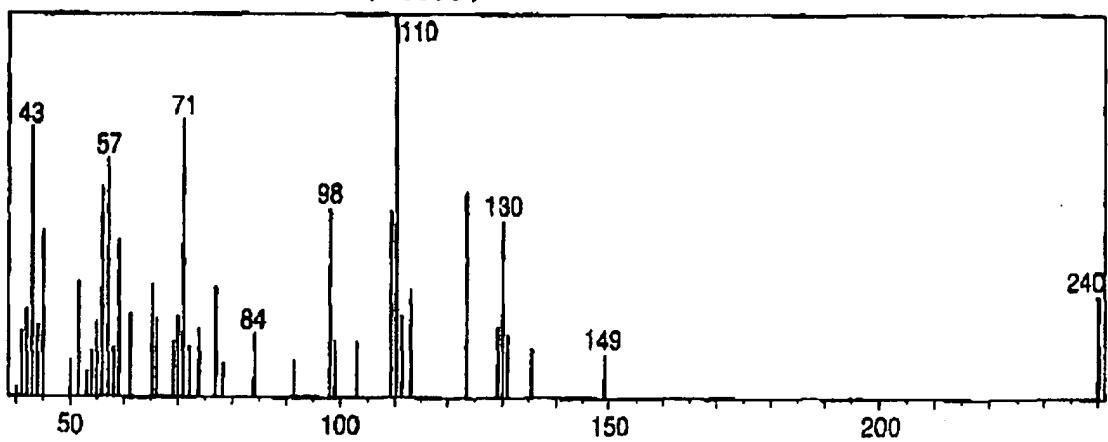
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*FIG. 4*



SCAN NO. : 9717  
NUMBER OF PEAKS : 41  
BASE PEAKS : 110.15 (20690)

BACKGROUND : (9414-10057)  
RETENTION TIME : 84.467



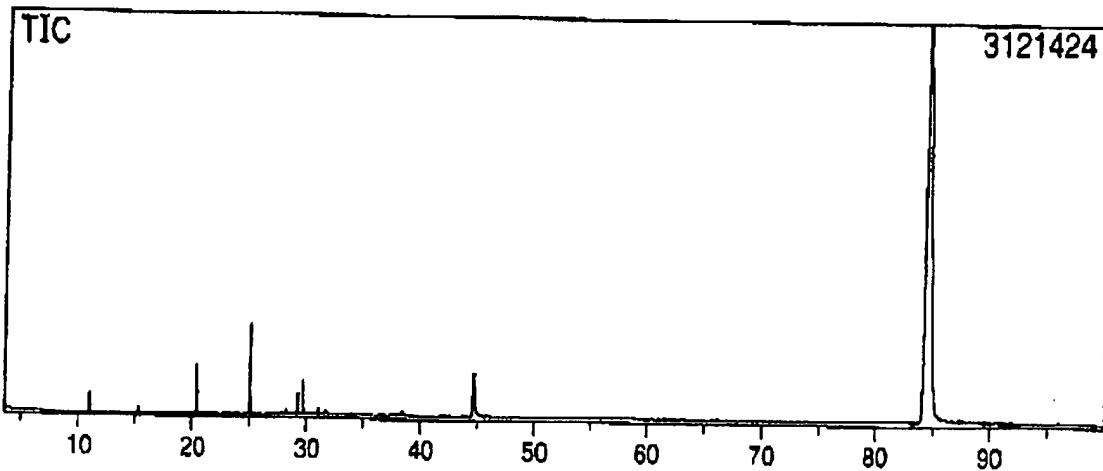
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*FIG. 5*



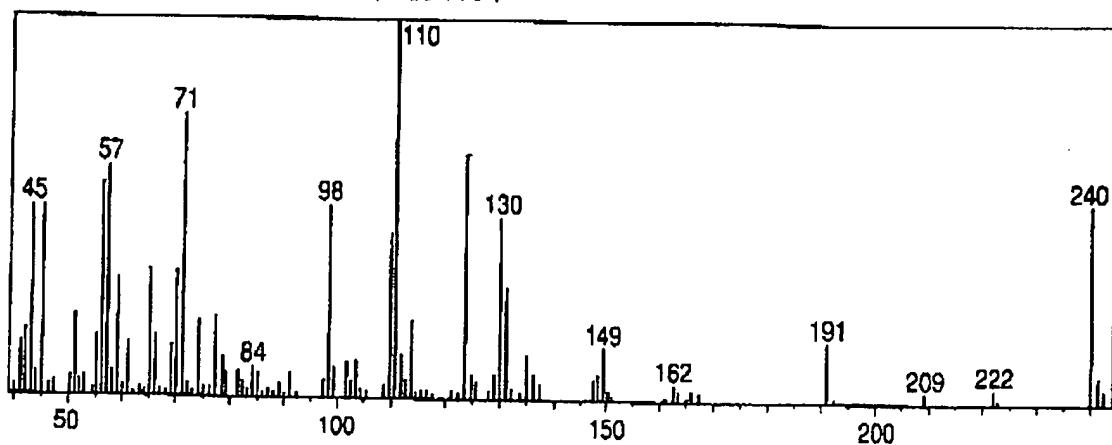
SCAN NO.: 9724

NUMBER OF PEAKS: 101

BASE PEAKS: 110.15 (220416)

BACKGROUND: (9363-9965)

RETENTION TIME: 84.525



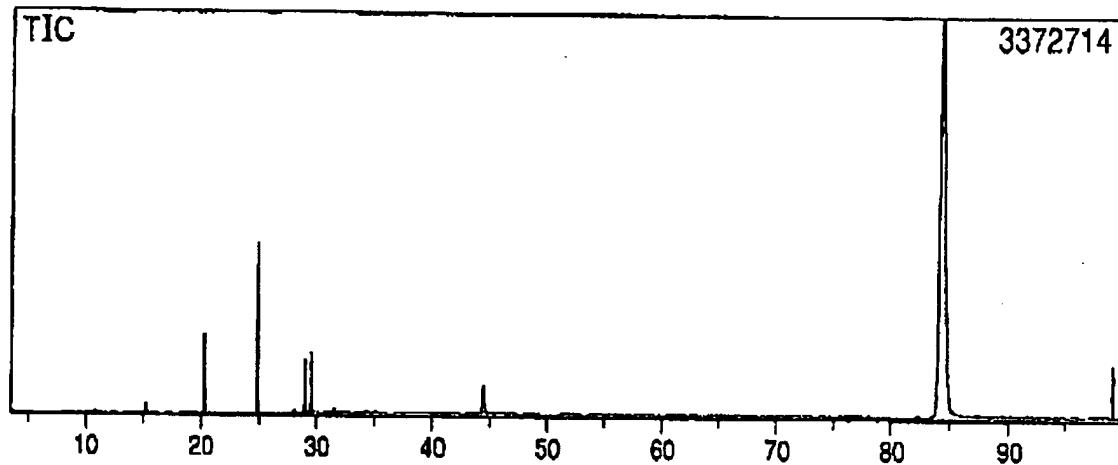
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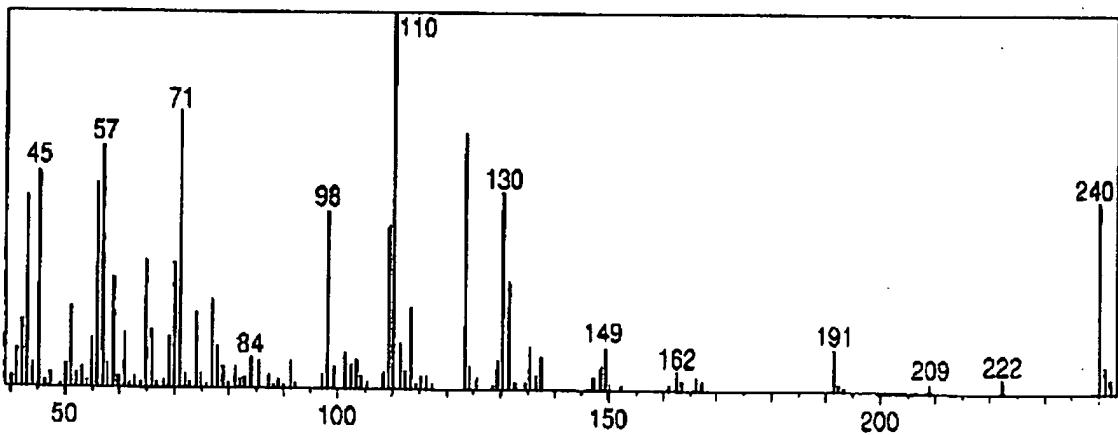
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*FIG. 6*



SCAN NO.: 9718  
NUMBER OF PEAKS: 100  
BASE PEAKS: 110.10 (228126)

BACKGROUND: (9451-10064)  
RETENTION TIME: 84.475



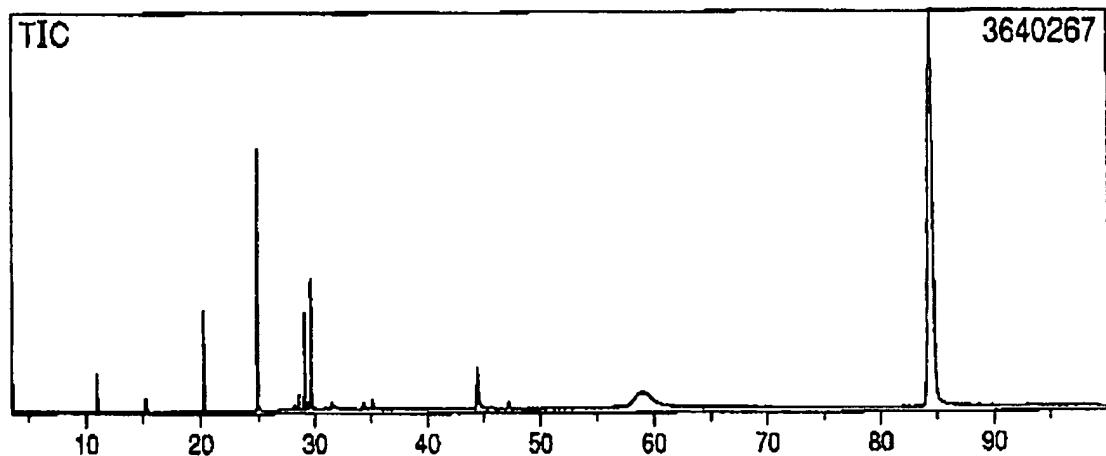
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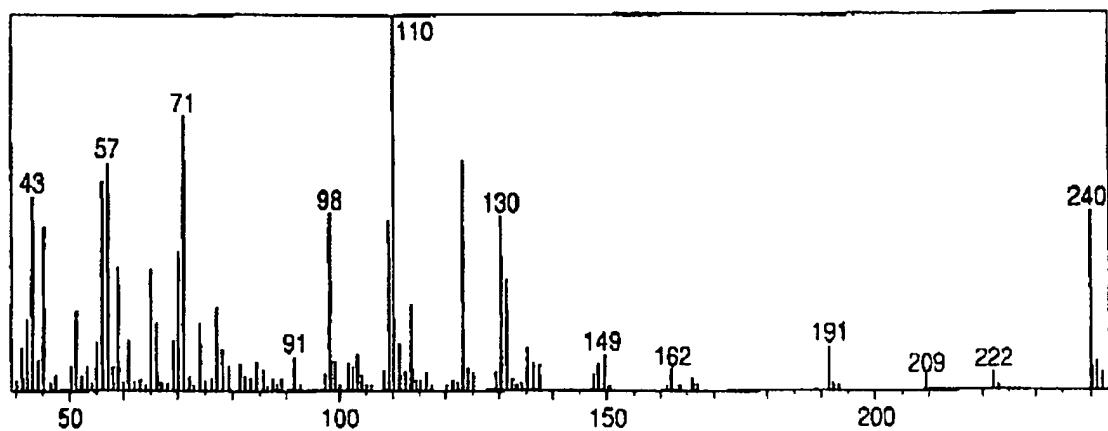
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FIG. 7



SCAN NO.: 9719  
NUMBER OF PEAKS: 102  
BASE PEAKS: 110.10 ( 260589 )

BACKGROUND: (9477-10194)  
RETENTION TIME: 84.483



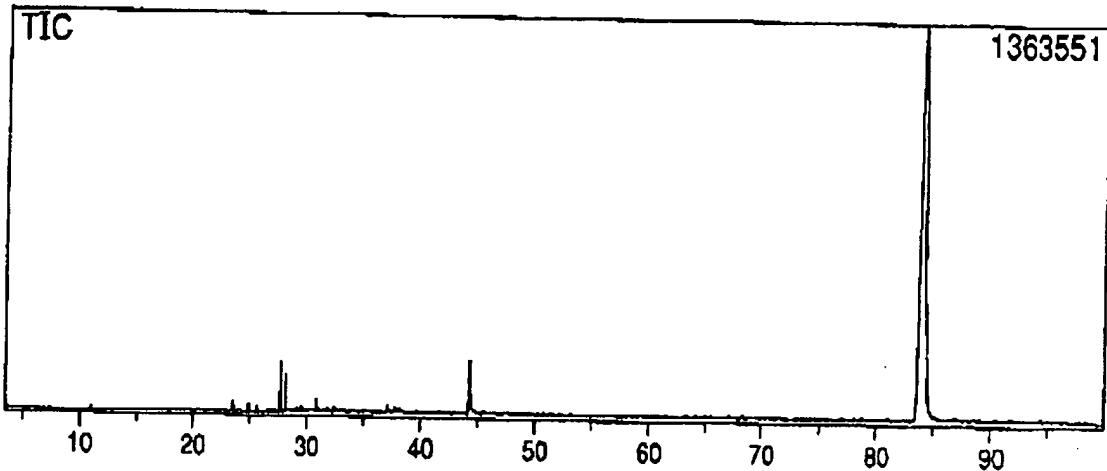
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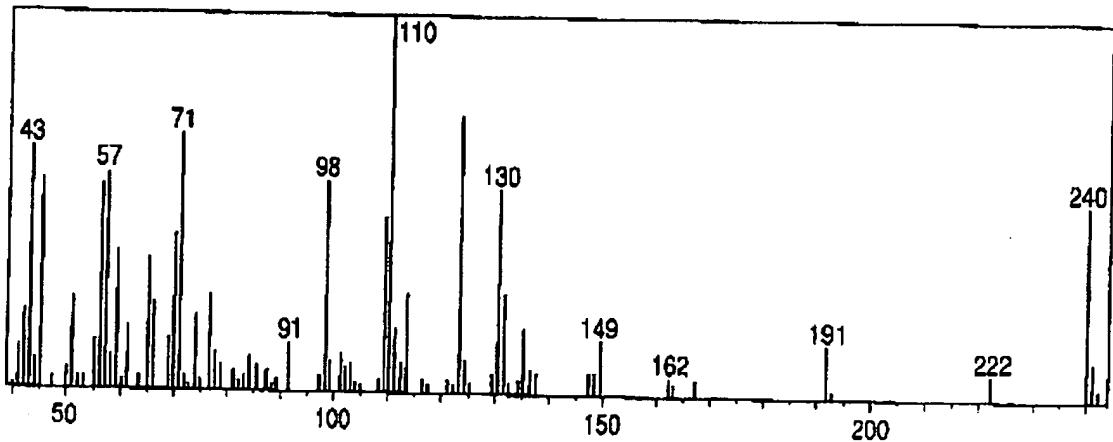
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**FIG. 8**



SCAN NO.: 9657  
NUMBER OF PEAKS: 81  
BASE PEAKS: 110.10 (93032)

BACKGROUND: (9300-10284)  
RETENTION TIME: 83.967



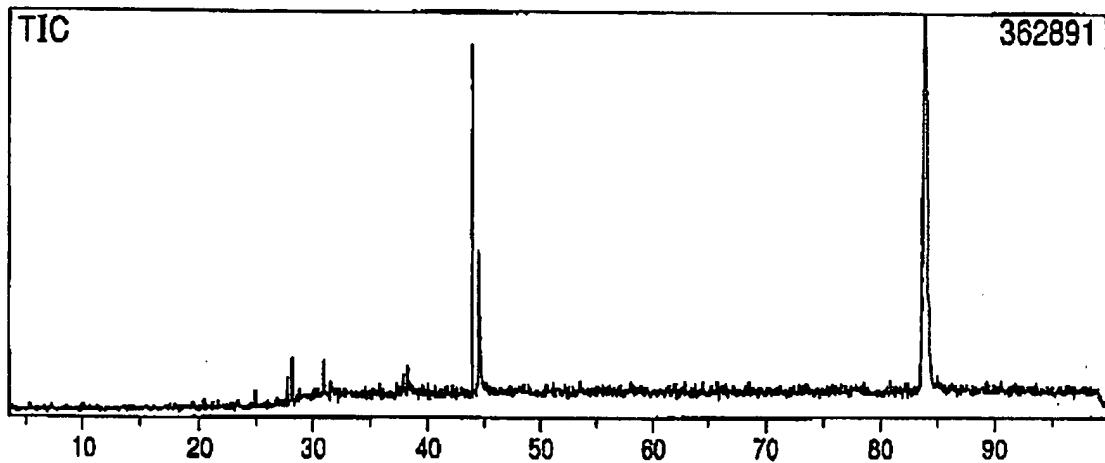
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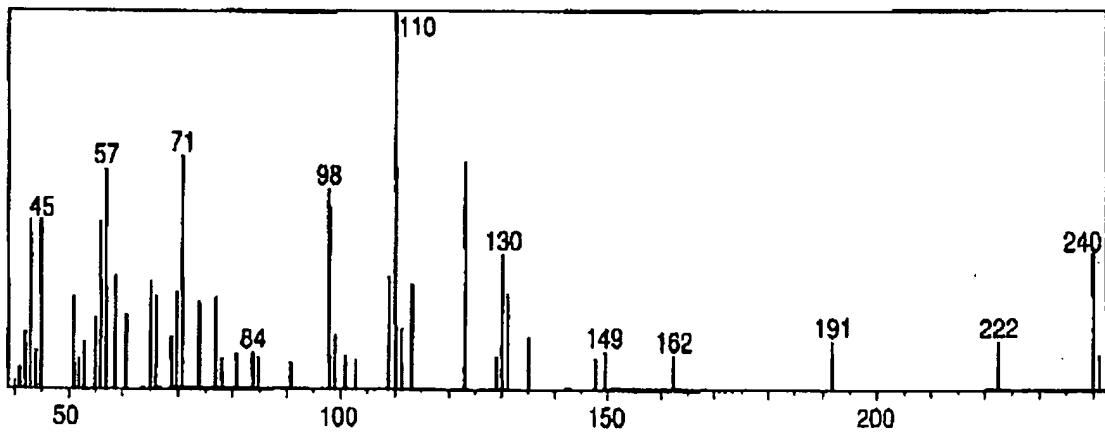
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FIG. 9



SCAN NO.: 9640  
NUMBER OF PEAKS: 46  
BASE PEAKS: 110.10 (26208)

BACKGROUND: (9343-10071)  
RETENTION TIME: 83.825



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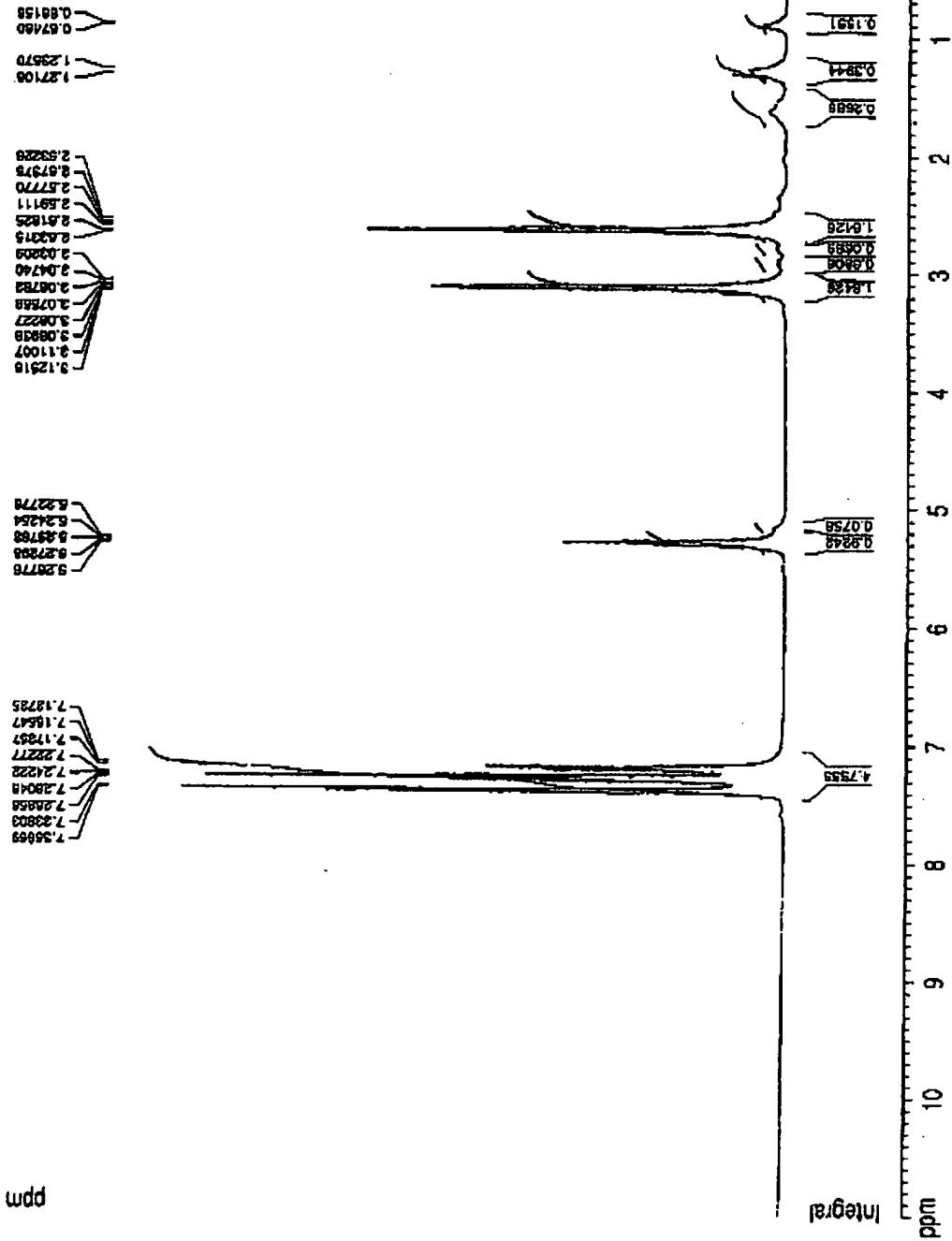
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FIG. 10

PHTPx<sub>B</sub>, TPxB0.1%/Glu0.5%/ $\gamma$ N2/2dan

ppm



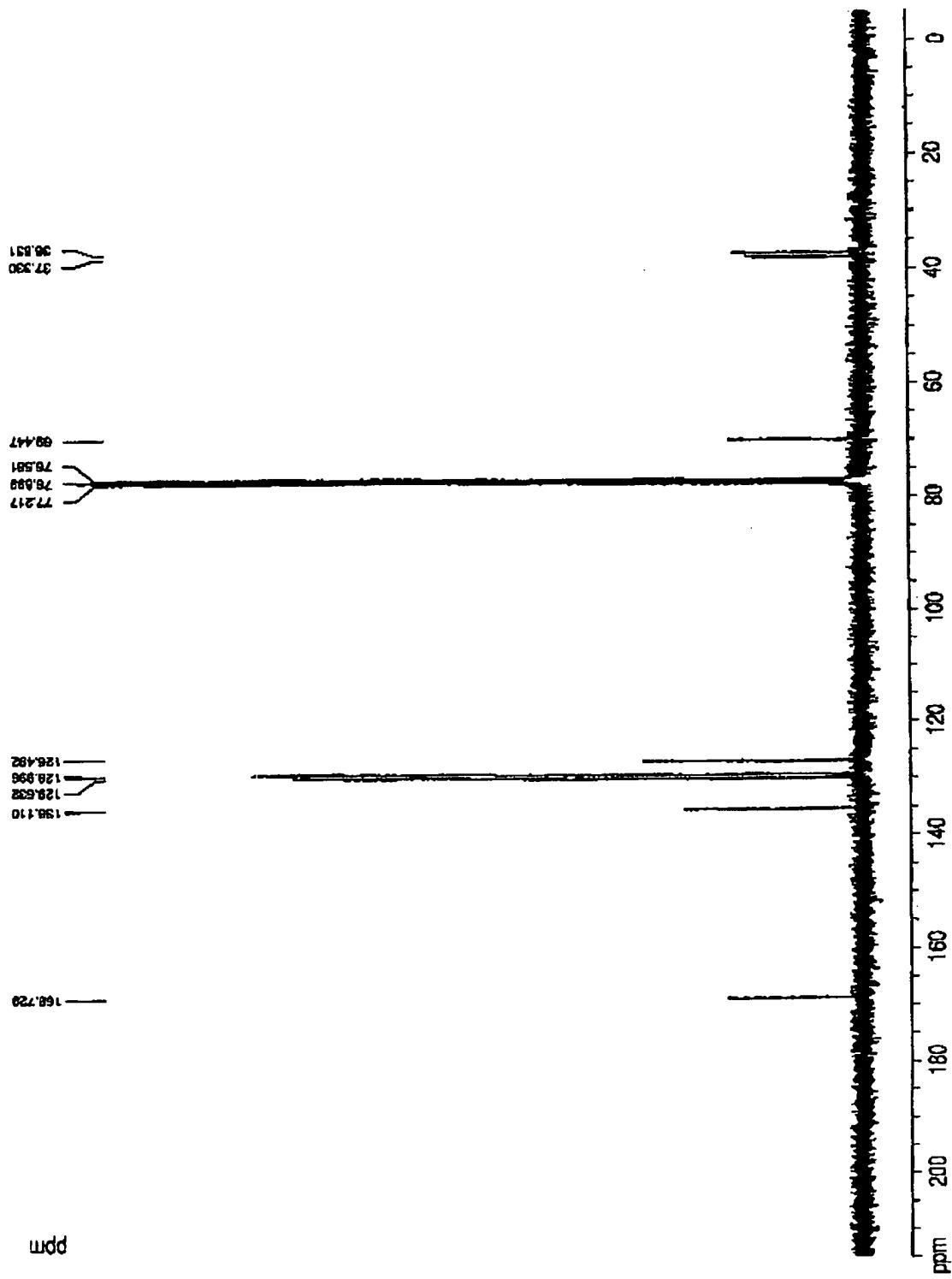
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FIG. 11



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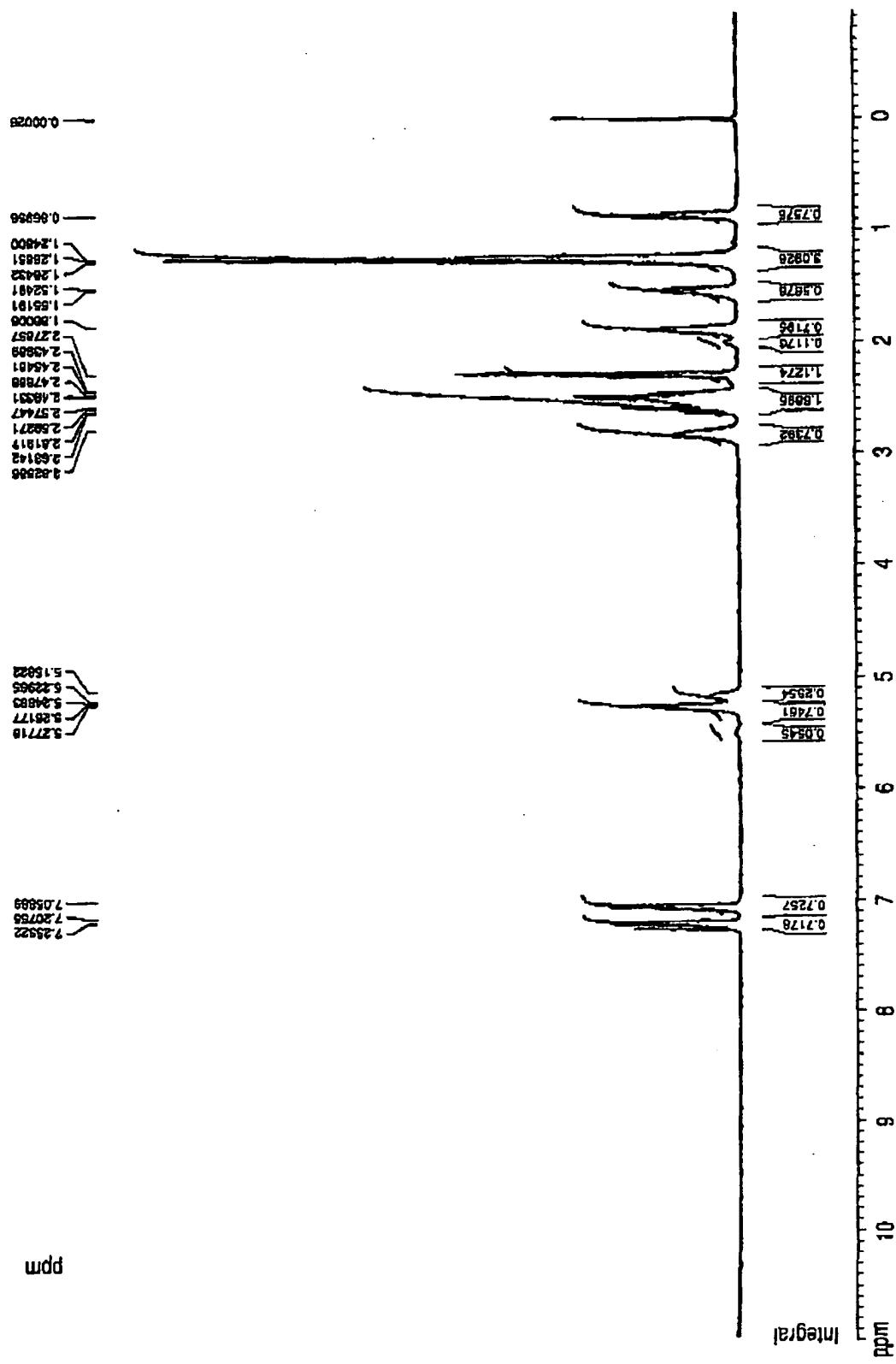


FIG. 12

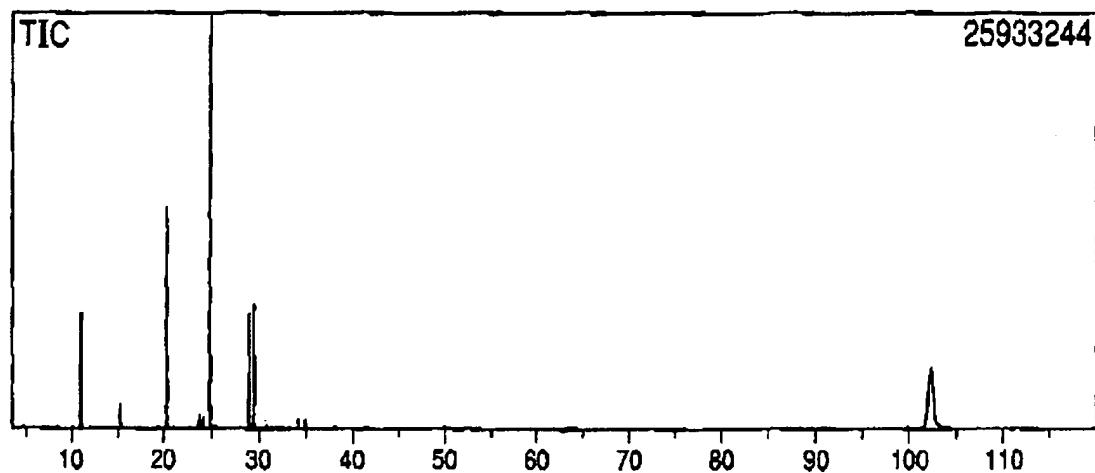
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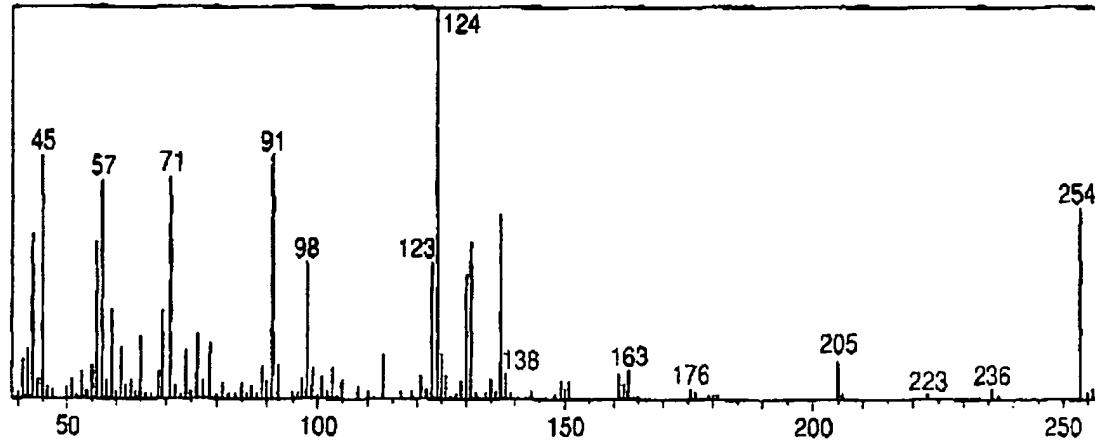
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FIG. 13



SCAN NO.: 11859  
NUMBER OF PEAKS: 116  
BASE PEAKS: 124.15 (225728)

BACKGROUND: (11752-11974)  
RETENTION TIME: 102.317

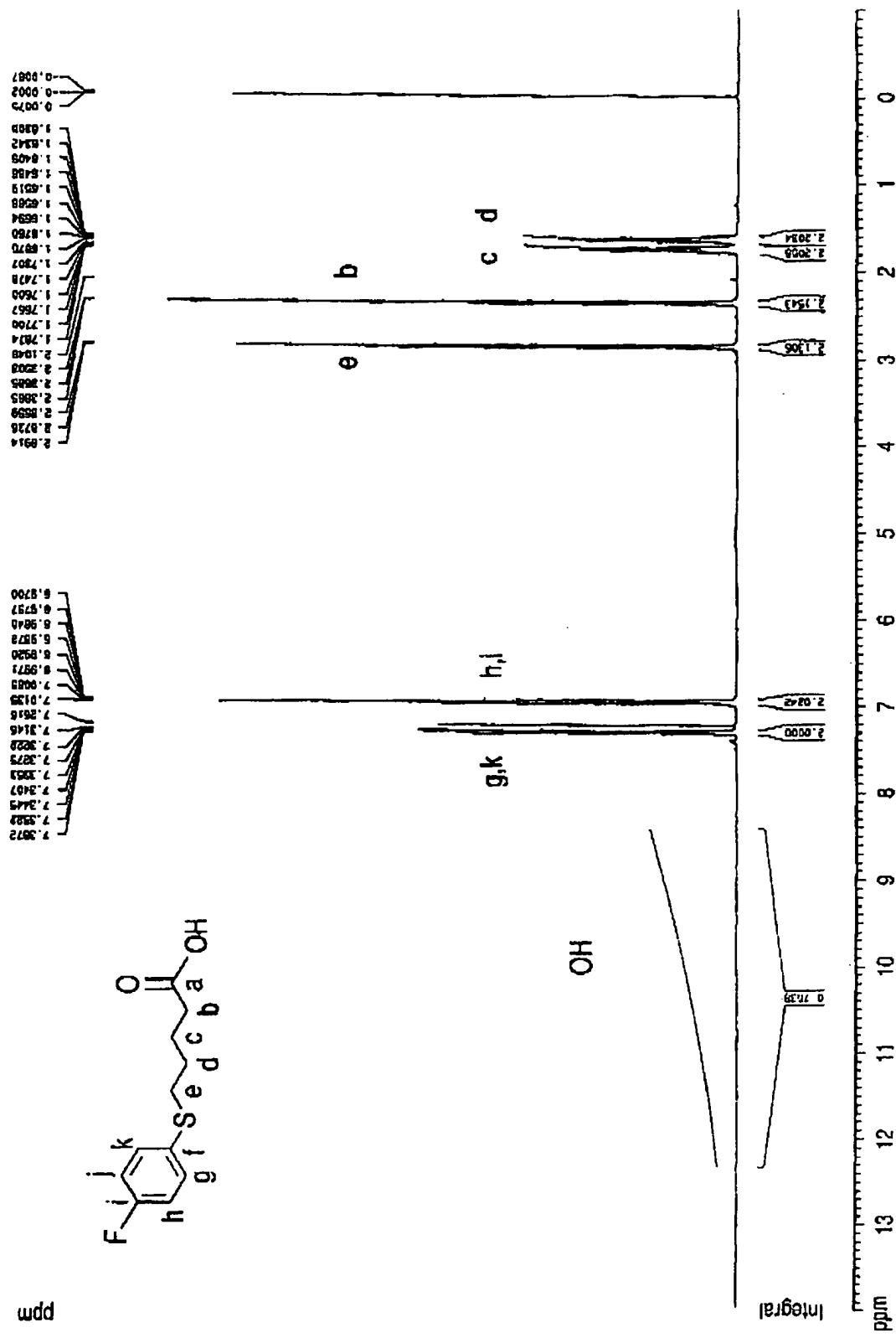


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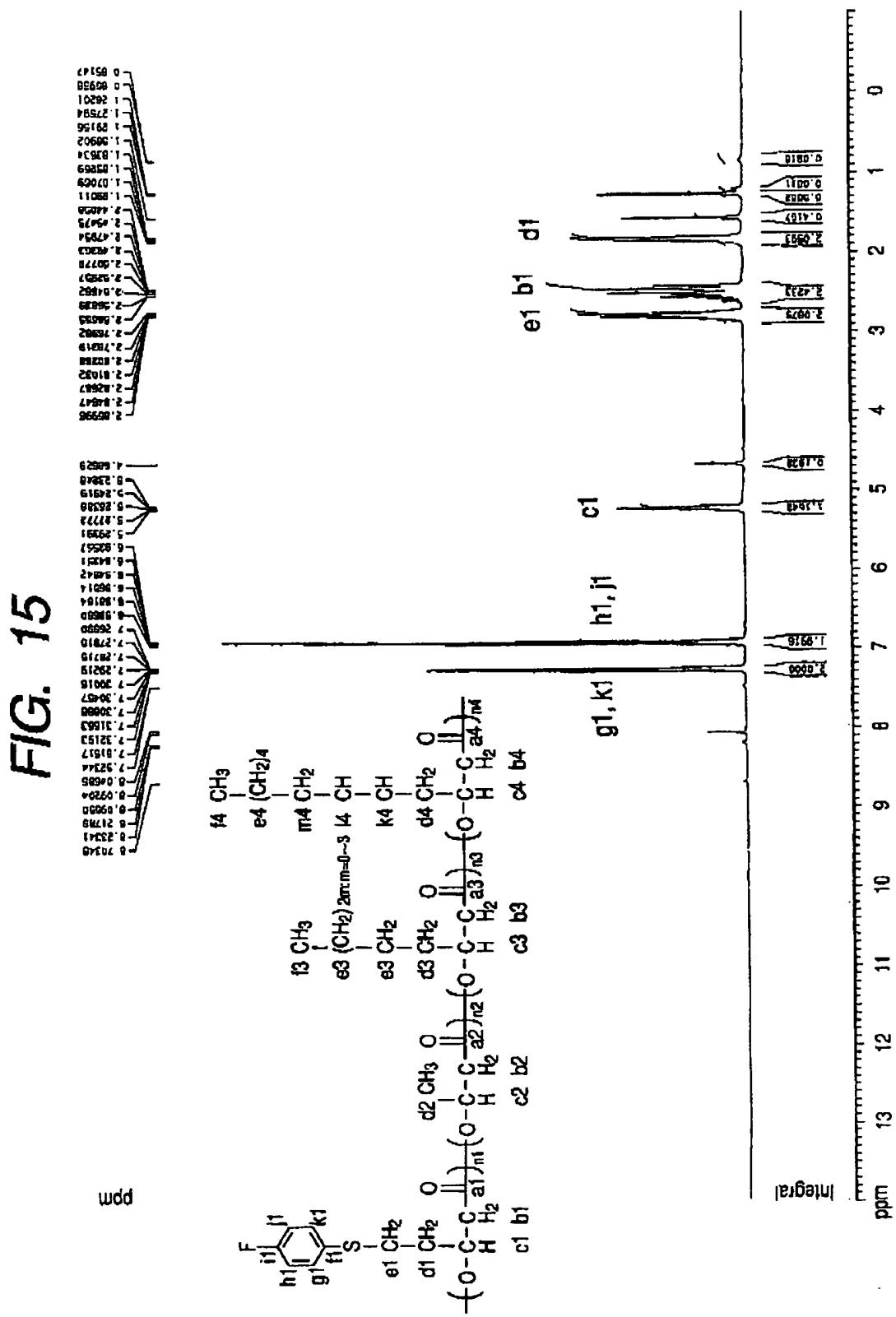


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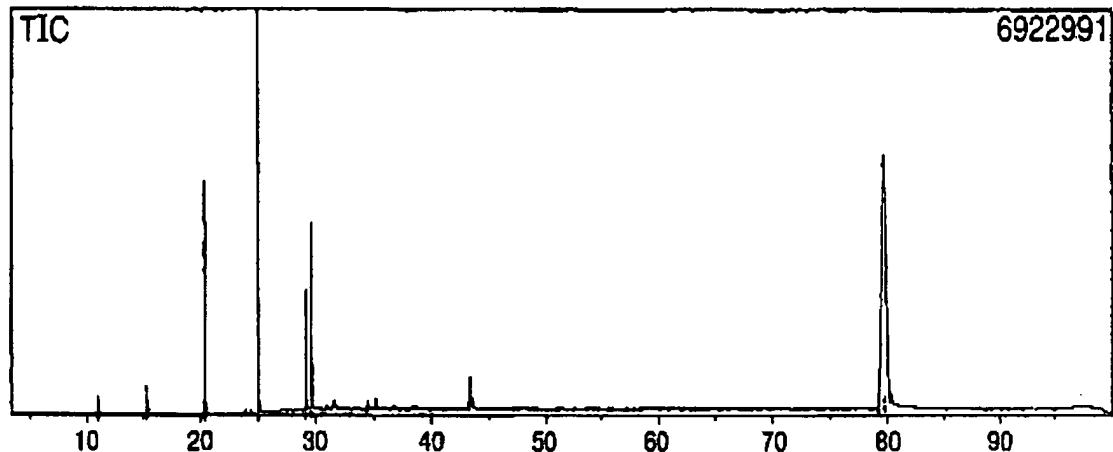
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FIG. 16



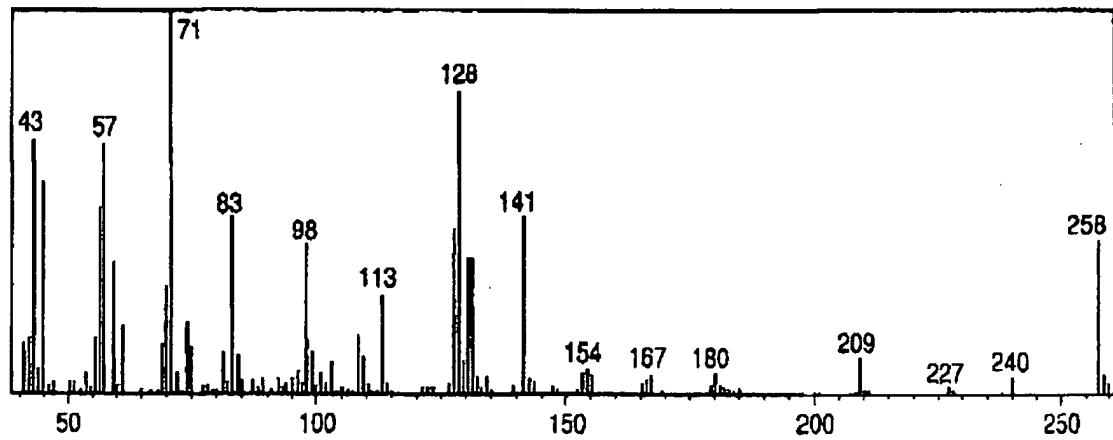
SCAN NO. : 9159

NUMBER OF PEAKS : 116

BASE PEAKS : 71.10 (240026)

BACKGROUND : (9080-9241)

RETENTION TIME : 79.817



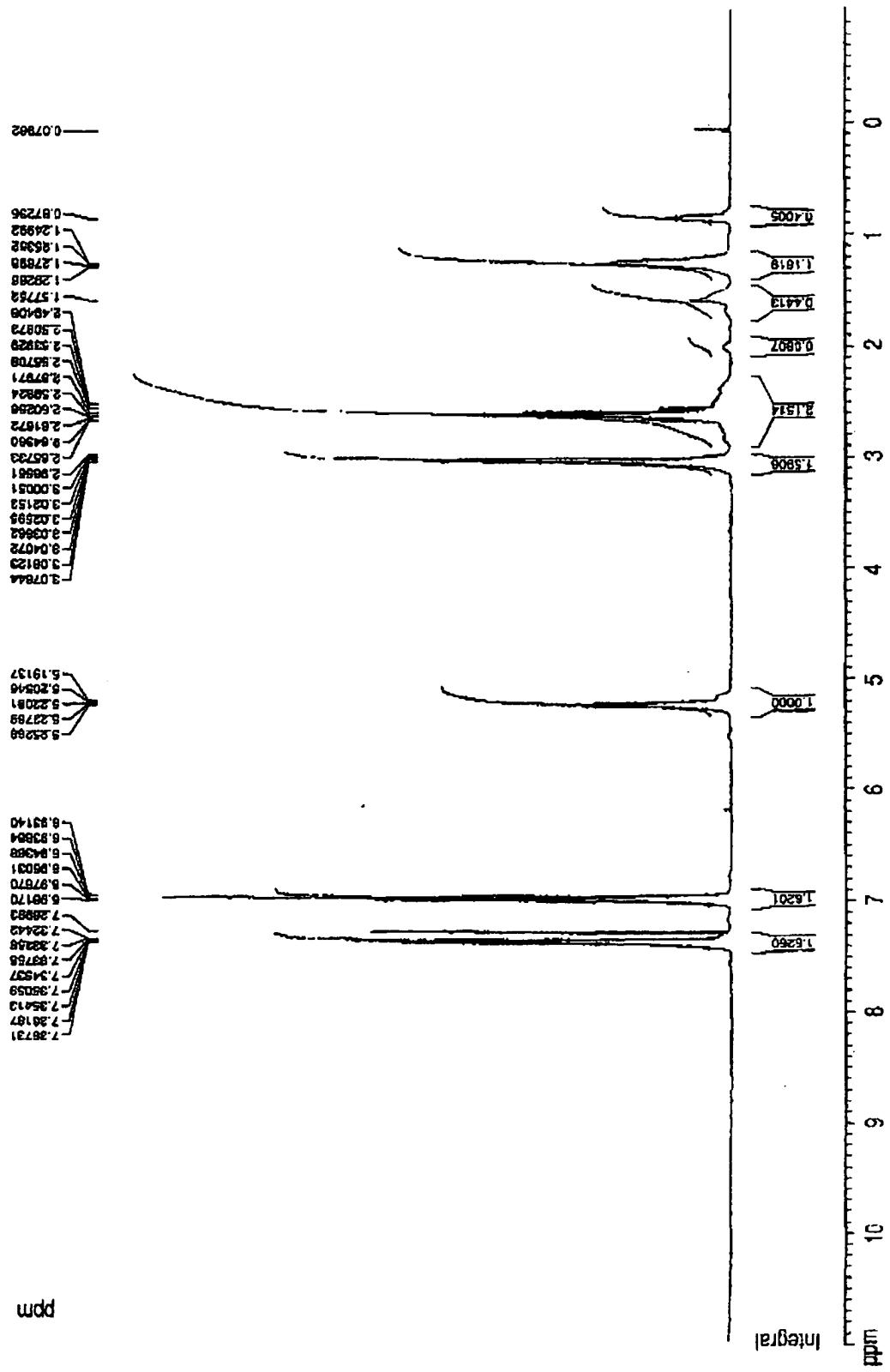
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FIG. 17

FTIR<sub>x</sub>BAO.1%, Glc0.5%, YN2, 2dan

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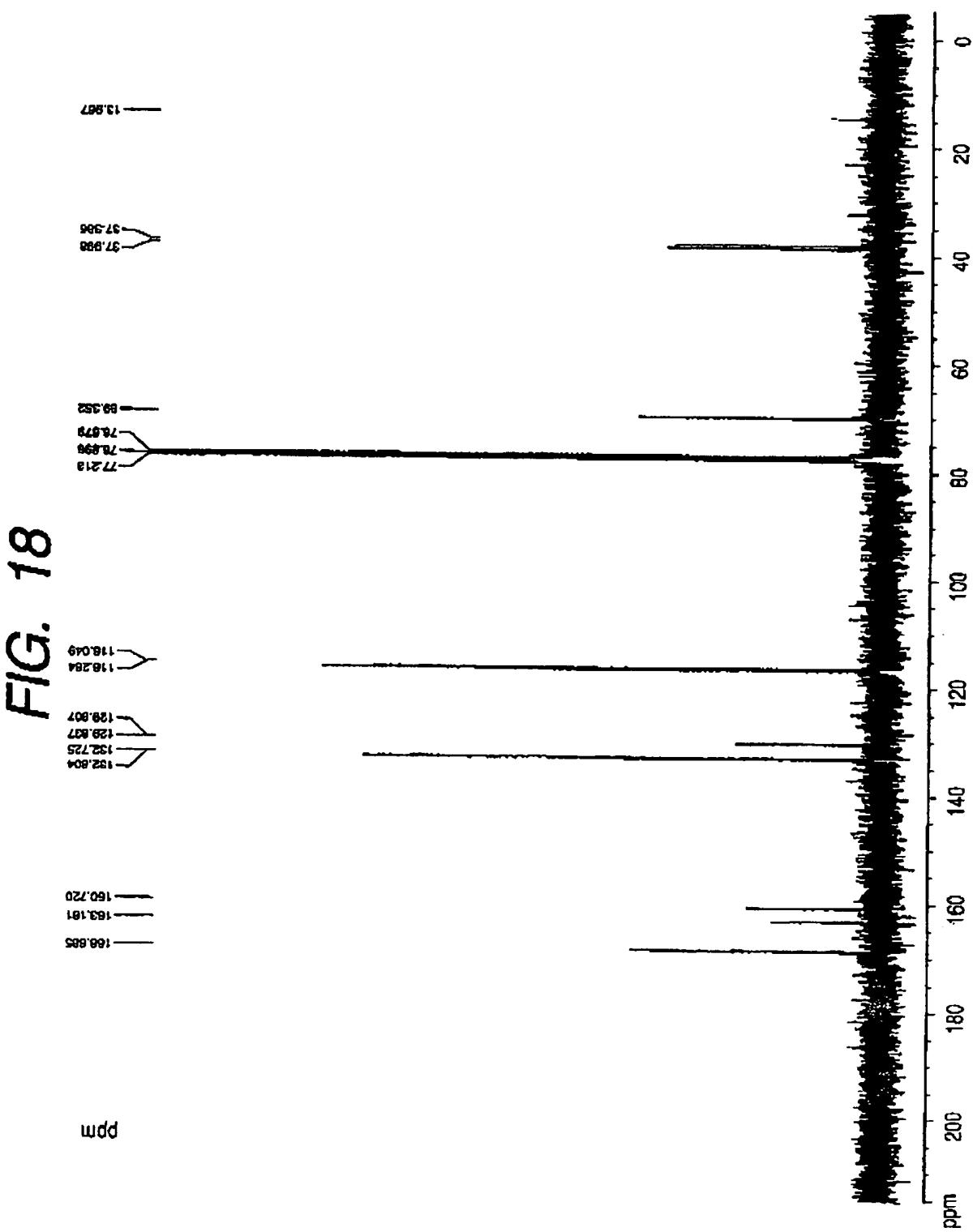


FIG. 18

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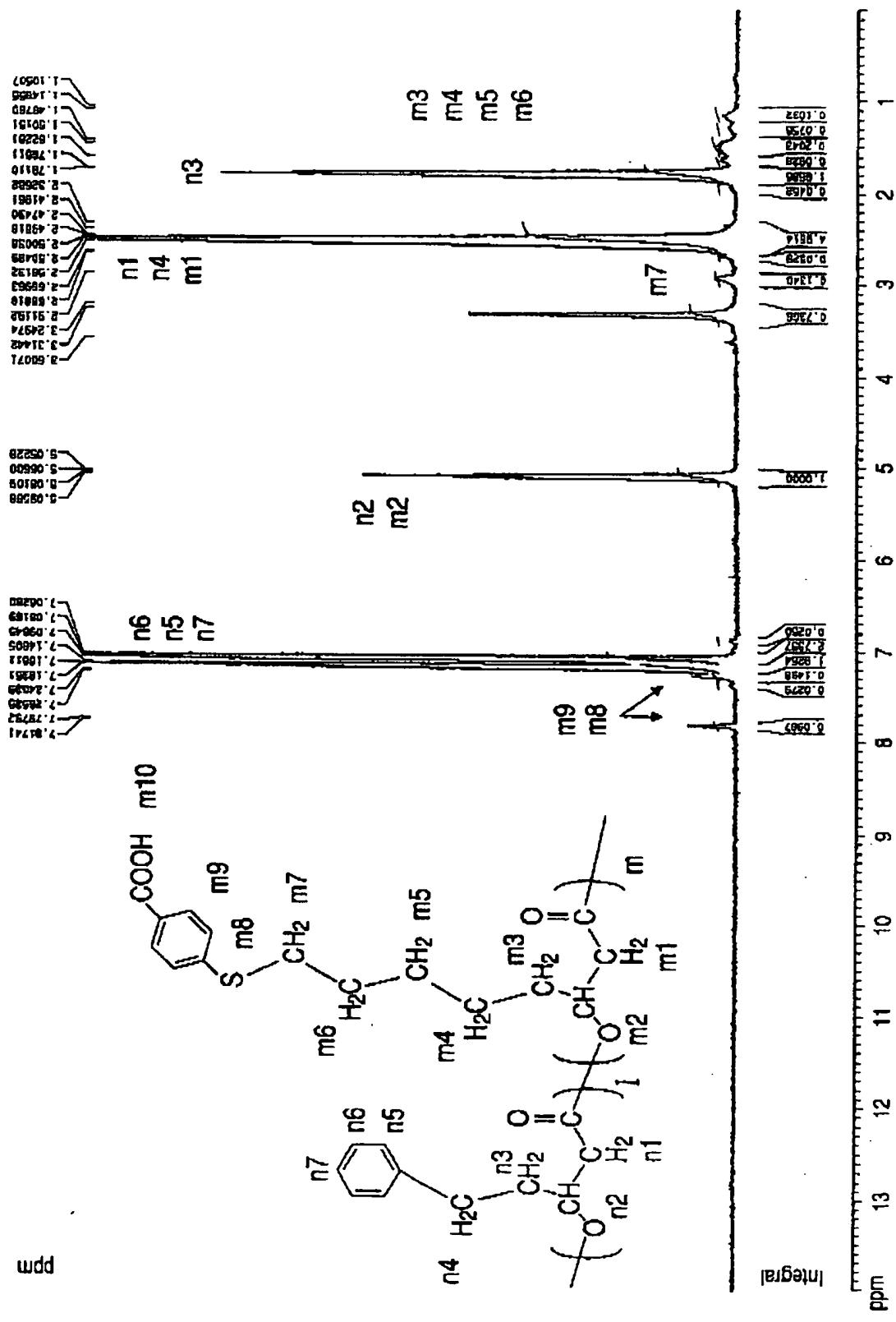


FIG. 19

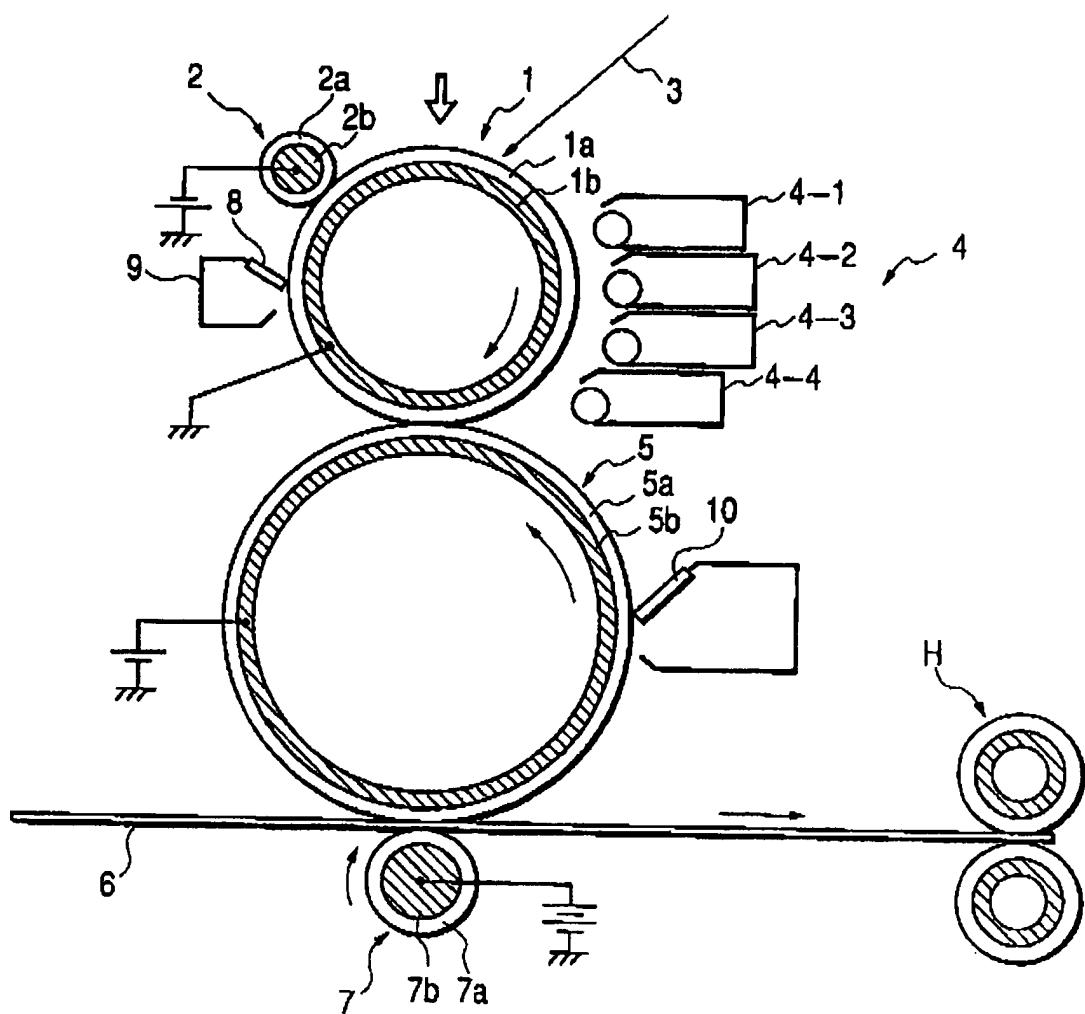
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FIG. 20



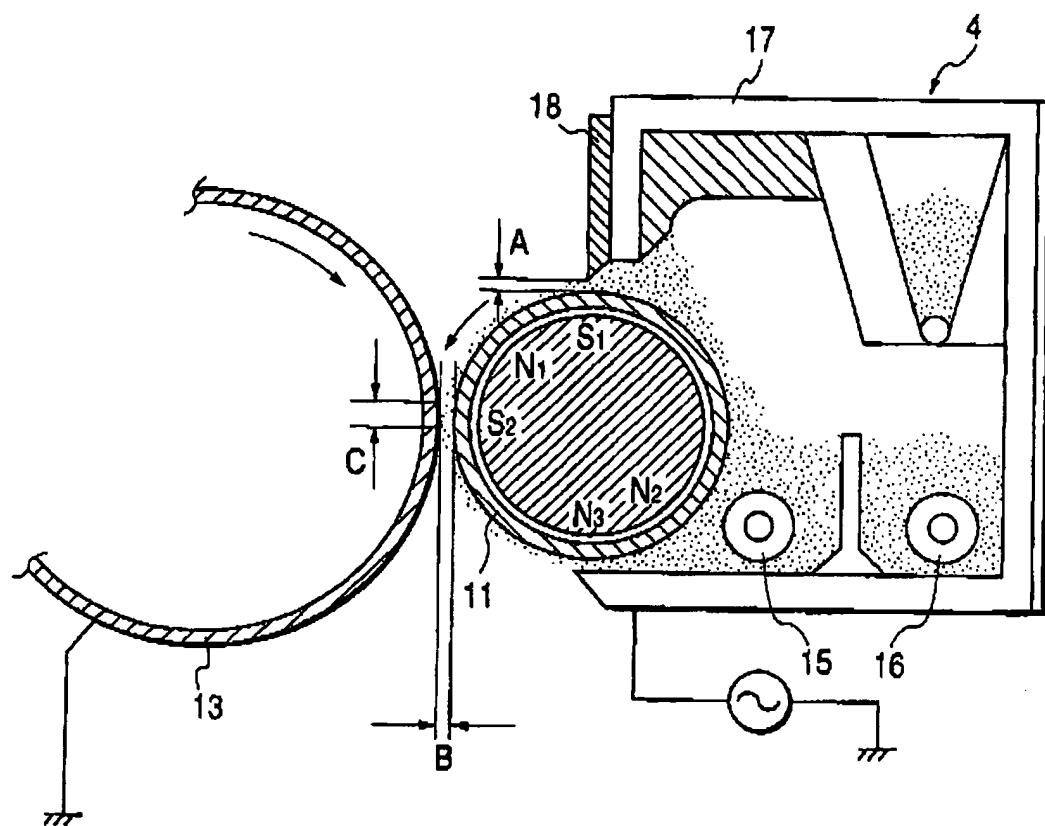
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FIG. 21



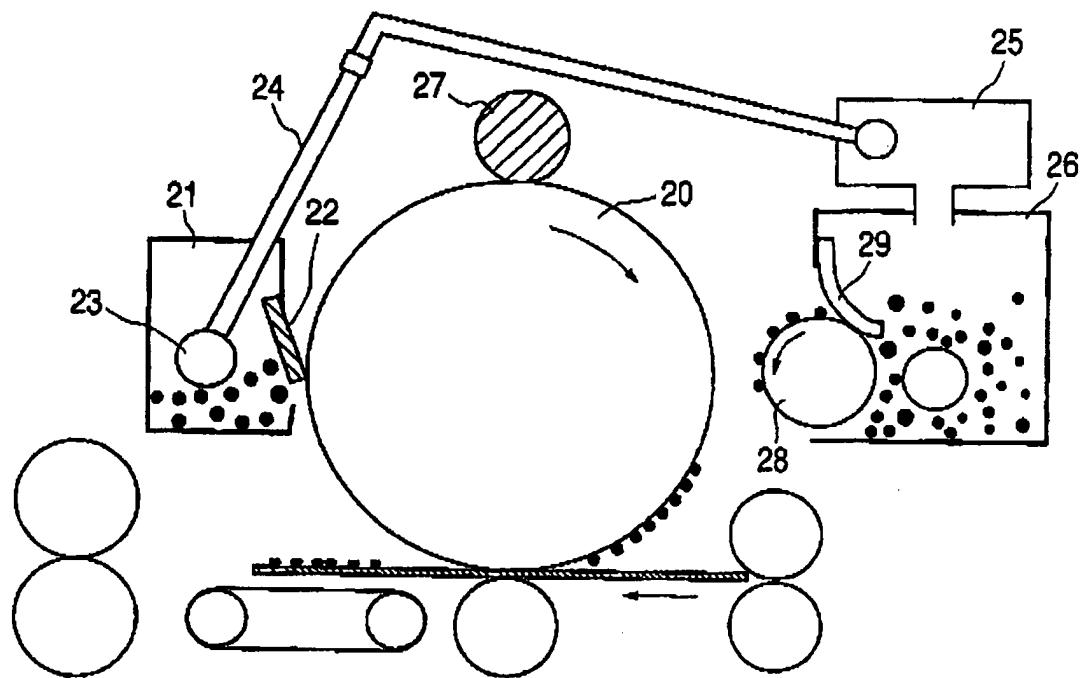
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*FIG. 22*



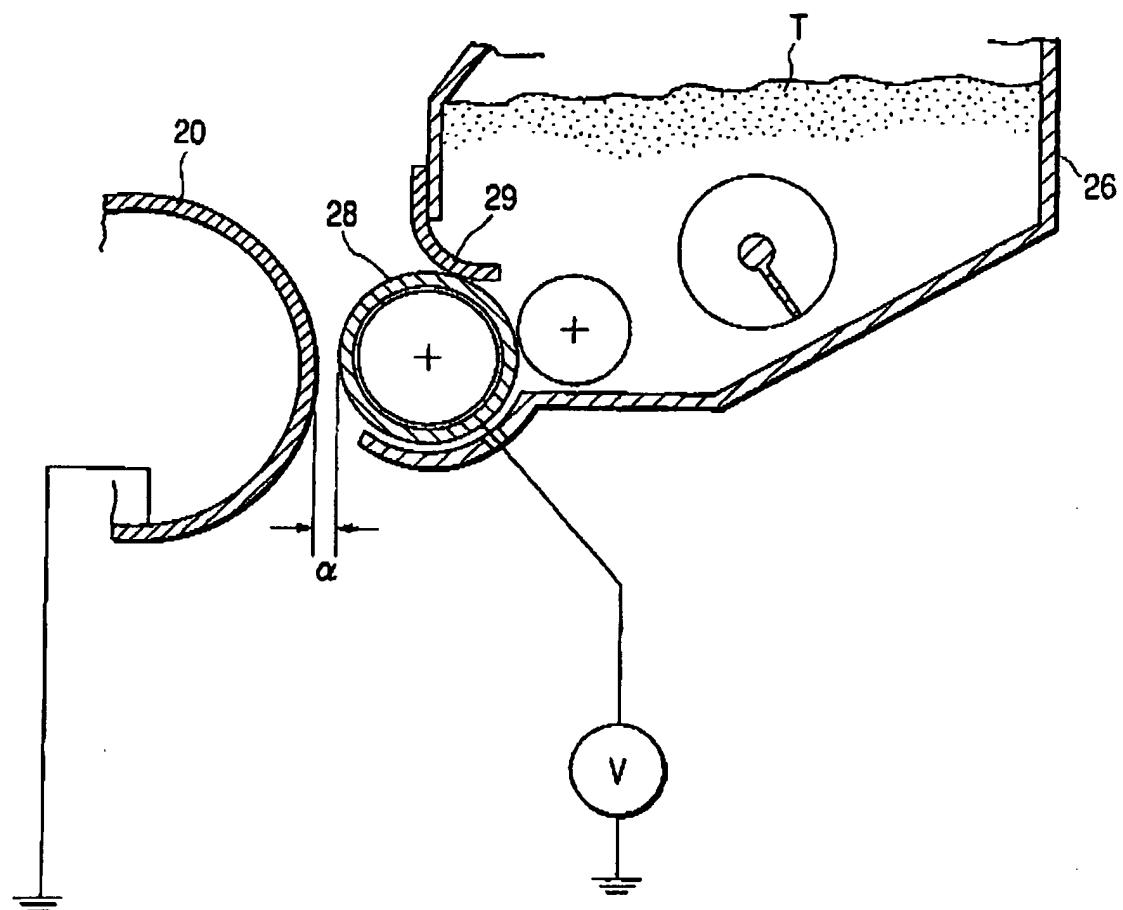
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FIG. 23



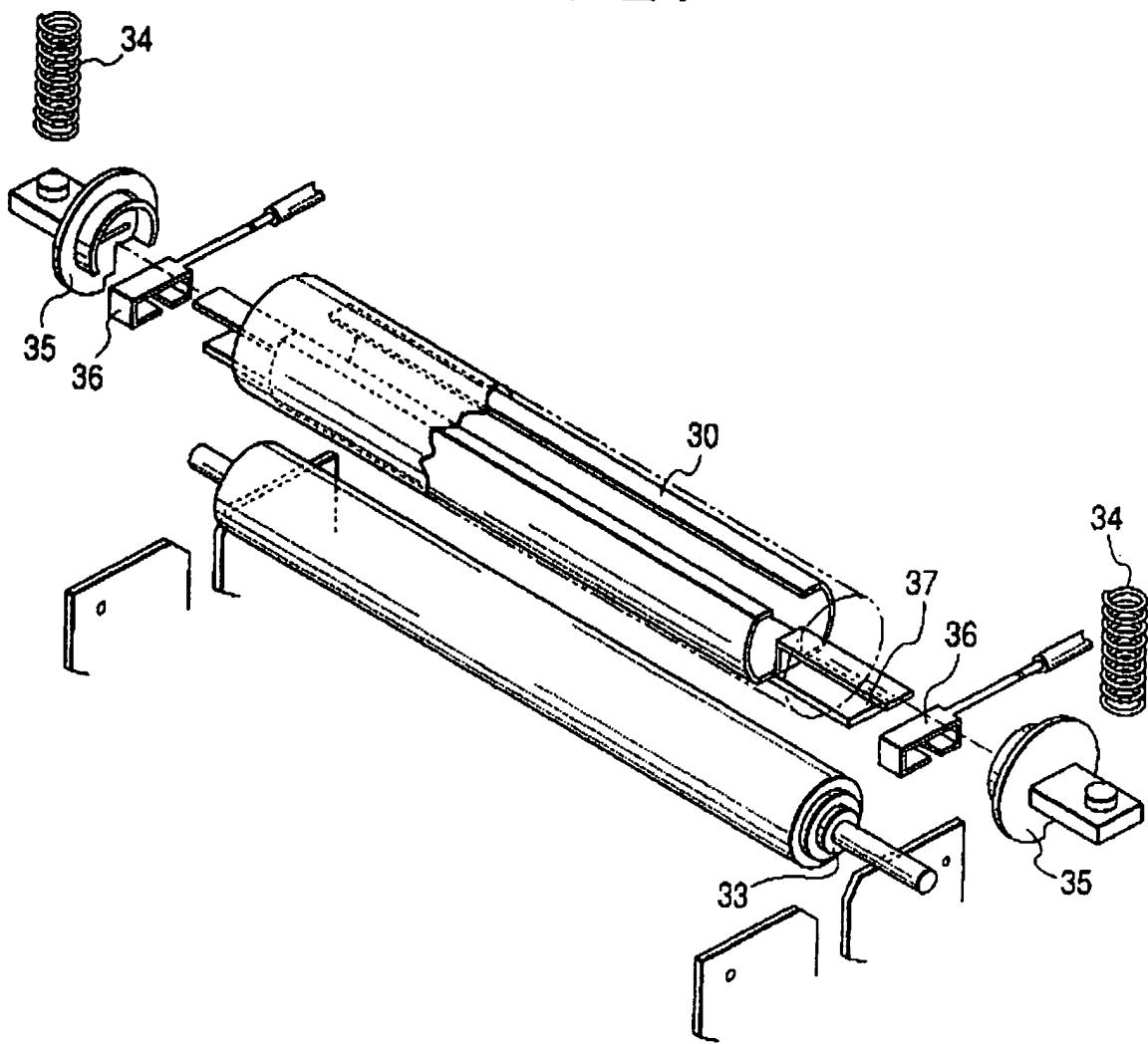
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*FIG. 24*



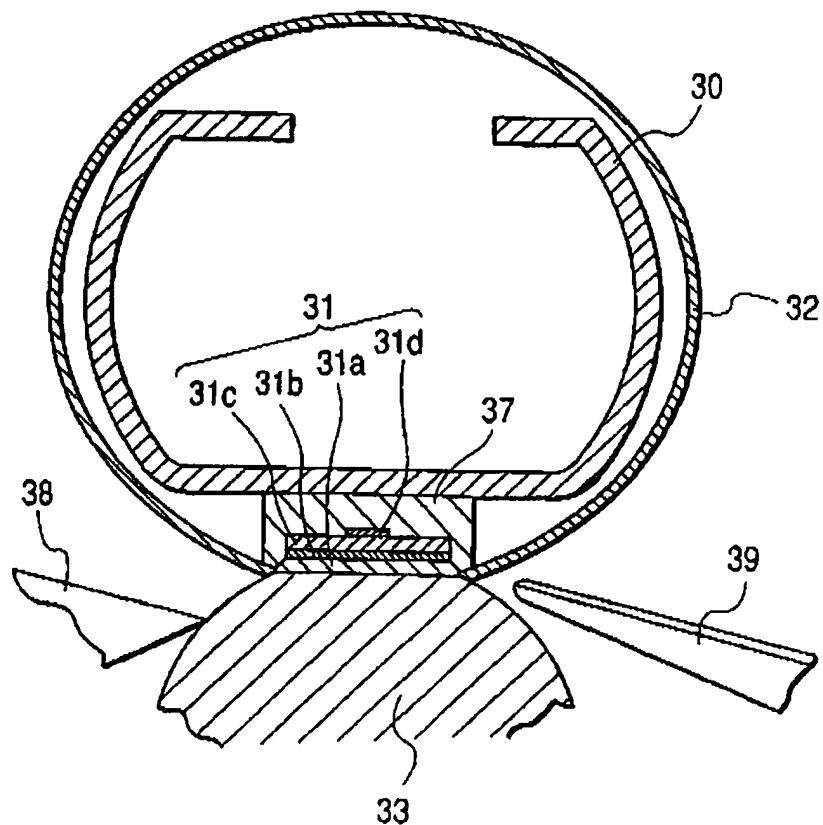
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*FIG. 25*



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**FIG. 26**

